STAND Processing

Introduction 4

Transcribed notes 1B 5

7266 1B 7

Transcribed notes 1E 8

7266 1E 10

Transcribed notes 1F 11

7266 1F 12

1E 1B 1F 13

Transcribed notes of 1G Stand developed 17

7266 1G 18

Transcribed notes of 1H 19

7266 1H 20

Transcribed notes of 1P 21

7266 1P 22

Old 7266 stand developed in the 25 foot Lomo tank 23

7266 Stand Conclusions 28

7266 3G in HC-110 29

Transcription of 7266 3G 29

Develop film Wrong 32

7266 3H in HC-110 35

3i 36

3J 37

7266 Roll #4 Test A **39**

7266 Roll #4 Test B **41**

7266 Roll #4 Test C **42**

7266 Roll #4 Test D **44**

7222 Oct 7, 2017 **50**

Introduction

The date is currently January 9, 2018. I have completed editing and compiling reports from Sept 19, 2017, when I started shooting 16mm Tri-X and developing it. Jobo 110 reels were used for many tests. But, I did manage to develop some in the 25 foot tank and in the 50 foot tank. I am now getting ready to use the 100 foot tank.

I have settled on Stand developing reversal film. It uses much less chemical. It worked every time I tried it. I was not tied to the developing chair, agitating every 30 seconds for 22 minuets. I could walk away for an hour at a time. I liked that.

I bought bulk Dichromate Bleach and clear chemicals. Questions still remain about pushing film, and contrast control; they are slowly being resolved. More questions today involve the room temperature issue. It was very warm in September but now it is very cold, too cold to use room temperature. I don't think I ever did a stand test at 68 degrees yet.

My notes begin Stand developing with 7266 1B on page 260. I transcribed the notes as added pages to the page already made with pictures that is already in this document.

Page 161, June 8, 2017 "I want to use fresh film so I can always get the same results. I need things that work. A film I can control. A developing and printing scheme that is repeatable."

Page 237. Sep 14. "The best way I have found to determine correct exposure of reversal is to project it. Project and eyeball it. The video camera changes too much on the light box. You must view the film to see the effects and to select those you like or prefer."

Page 238. Projection of a loop of film shows the best exposures. You have to look at the projection. A video camera changes the projected exposures. You cannot rely on the video made of the projection. Look at the projections and select the exposures you like. That is what I learned to do. The selections are marked on the videos now during editing videos. After you get results that look good, you can fine tune it. Are details seen in shadows? How about light areas? Increase exposure to see details in shadows and decrease development time to see details in light areas.

This document will follow Stand developing of 7266 Reversal Kodak film.

Transcribed notes 1B

Page 260. Sep. 20, 2017. Wednesday. Tri-X 1B. Stand Reverse. Bracket Test.

Bracket f4-22 only. I used to include f2 and lower. No more. Stand will push the film, or so I thought. f4 will go dark. Actually, f4 goes lighter. I still hadn't gotten it right yet. Use the red filter to be like the first test, 1A. Figure 5 feet + leader. 5 x 40 fpf = 200 divided by 6 exposures is 33 frames a shot.

f22	16	11	8	**5.6**	4
1	2	3	4	**5**	6

RED FILTER +3. Shots: 30, 3, 30, 3, 30, 3, etc. I wrote them all out. Blank frames were messed up. This film was cut up and only the best exposure was saved. There is no loop anymore. I don't remember what the blacks looked like.

Light was 320. F16-11 was the target @ 200 ISO with Red +3.

3ml RO9 was put in 300ml tap water. The mix was 76 degrees f. Room temperature. 20 inversions were used starting out the one hour stand first 30 minuets. Timers were set. Now I am free of the darkroom.

Then I researched American chemicals to make Rodinal. Expensive.

My notes do not say what the agitation mid stand was, but an index card does. 3 inversions were used at the 30 minuet time. Temperature was 76f.

2nd developer was new RO9 1:100 76f. Bleaching was 5 minuets, clear of bleach was 3 min, lots of washing was done in-between. Re exposure was 30 seconds a side, rotating the reel, up close to a bare 60 watt bulb in the cellar.

Results

It is real black. I <u>can</u> see the first pictures. My single frames didn't work. I failed to cover the lens - HA. I wonder if there will show a difference?

I had stretched wide and filled the reel. Film does not reach the floor. I wiped it between 2 fingers. That may help to avoid spots or streaks.

It is really much darker than the previous film. Best projection will be what shows what is what. I chose f5.6. If I took the filter off, f16 would be correct. Box speed. But that is ASA 25. 1/40 f16 320 Red filter +3. But it is 3 ISO stops. if you set the meter to 320 and f16 to 1/40. if the red filter is +3 removed f5.6 to 8 is one stop to 11 is 2 stops to 16 is 3 stops. ASA 32.

Note: I still have difficulty figuring this out.

I like this developer method because it is the first time sky has darkened and clouds pop while ground stays light.

I've never had that happen before. Previously, exposure would have to be reduced to see darker sky and nice clouds. That always underexposed the ground. Likewise, if the ground was properly exposed, the sky would to white.

Now I have both nice darker blue sky, nicely rendered clouds, and properly exposed trees and buildings.

I don't care if ASA is 32 or not. It works for me.

Use this again. Fantastic results. Clouds look right !!!

Notes say ASA is 20.

7266 1B

Tri-X 16mm new film REVERSED
RO9 Developer 1:100 76 degrees one hour twice
Potassium Dichromate Bleach
320 foot candles 1/40 16fps Bolex H16T 25mm Switar lens
Deep Red Filter

Page 260, light was 320, red filter, try less agitation to start with.

5.6 projects best https://www.youtube.com/watch?v=NAjrn76POqY

Transcribed notes 1E

Page 267, Sep. 23, 2017 Sat. Stand Reversed

Clipping the end of the head of the film before loading it into the Jobo spiral really works. I stretched locked my arms, then rewound a little to cut it off and got an exact load onto the spiral. A gray card was used in full sun up close out of focus on an angle and not perpendicular to the sun at f5.6. Use a gray card between shots instead of black film made by covering the lens. The light was clear blue sky at 10:50 am. I wanted clouds. 70 frames x 3 = 210 + grays. Reset the counter to 0 and end on 20 (?). 12:20 pm still no clouds. 320+ light. Super bright. No clouds appeared, so, I changed the experiment rather than waste the light. Now, what is the Red Filter supposed to be used at? With Red f5.6. Without Red f16. Both should be the same if the filter factor is a +3 stops. With makes the sky darker, without the filter the sky will be lighter.

Either way, I get to see longer projections and I get to try and duplicate stand developing.

Look at the film edges for developing artifacts and inconsistencies.

Perhaps agitate 2X at 20 and 40 min 1 or 2 times

Mitchell Tripod, Lens filter set, cable release.

I still like the idea of using so much less chemical, 3ml instead of 12ml. Temp is irrelevant. Also, I don't have to agitate every seconds. They are both great reasons to perfect STAND developing.

One person on forums I read about uses the top reel to develop film by the stand method, because chemicals fall and concentrate at the bottom. ? More agitation 2x instead of 1X helps?

RO9 1:100 77 degrees One hour, 20 inversions to start. 3 inversions at 30 min. Dichromate Bleach.

Will any of the f16 show? I hope.

I read that 5 ml in 500 works better than 3 in 300. JOBO reels fit into Patterson tanks without the core so more developer could be used. No more than 3 ml can be used in the JOBO tank as it only holds 300 ml. 5ml are considered the

minimum to use on a 35mm film. 5:500. Reels can be spaced and stacked up off the floor of the tank, using multiple reels. Many tests can be shot on separate 6' pieces and then all developed at one time.

Results

Both shots fit. The second at f16 is lighter. It did not have the filter. F5.6 did have the filter. I decided to use +2 1/2 with the red filter from now on even though I was confused about light and dark.

Tri-X 1E was projected. Yes, the f5.6 is way too dark. The f16 shot looks great. The film has spots from too much Flow. Gray single frame shots in-between takes worked great, eliminating most of video flash frames.

The light may have been a little different. I had to wait after shooting at f5.6 because clouds dulled the sun to 320- from 320+. That darkened the shot. The sun did get brighter for the f16 shot. By that time too much had changed between the two shots to be accurate. Try again.

I was looking for edge artifacts and used the light box next. I was annoyed that f5.6 didn't work.

7266 1E

Tri-X 200 16mm Reversed
RO9 1:100 one hour 76 F
H16T, 1/40, 320, f5.6 Red filter & f16 no filter
too much Photo Flow caused spots
wrong speed, gray slugs worked great

Page 267, September 23, 2017, I wanted to do a different test but there were no clouds. So, I decided to try to find out just what the red filter did. I took the f5.6 best exposure from the previous test as a starting point for the first shot. It was too dark. Then I took off the filter and closed the iris 3 stops to f16. That one looked correct. My notes confirm that f5.6 was first then f16. But, I had cut the film and only kept the lighter of the two exposures. So it is inconclusive. Repeat.

I do not believe it. The first one is supposed to be f5.6 and the second without a filter f16 brighter. No way. Do it again, but do not stand develop.

https://youtu.be/C8YNEqT95JI

After this test I started using +2 1/2 instead of +3 with the red filter.

The sunlight changed between the two shots.

Transcribed notes 1F

Page 270, Sep 24, 2017 Sunday, Stand 2 hours

f5.6 was too high. f4 would be correct. f22 is dark. f1.5 is light.

f2, f2.8, 4, 5.6, 8, 240 = 6'. So about 40 frames per shot + in-between slugs.

Start and end with the gray card so to avoid flash frames during video transfer.

If you develop hot, film becomes darker. This one was hand held, the trigger handle was used, the Red filter, Stand was 2 hours long. The gray card was used up close. f8-5.6 32ASA + 2 1/2. I tried to fit a f16 no filter at the end but I heard film run out before that. f8 may not have fit. It did, though. 320 + 2 1/2

15 slow inversions started the first 30 minuet development.

RO9 1:100 3ml in 300ml room temp 76 f at least f8/5.6 is the target. 6' of 16mm film. It all fit on the reel. I'd locked my arms wide apart, then rewound some. Too much. Rewind less next time. No tail remained outside the spool.

3 extra inversions were done on every quarter hour. 2 hours were done.

Bleach was 5 minuets, clear was 3 minuets, re exposure was 30 seconds a side to a bare 60 watt bulb in the cellar.

The second development used newly mixed RO9 1:100 this time it was 78 degrees. Two hours were done. Agitation is not noted for the second half.

Results

There are 5 sets of exposures. They start light and end normal, not dark. Brilliant clouds are at the end. I chose f5.6 over f8 but 8 had better clouds but darker trees. No push occurred. Not like I wanted anyway. Did 3ml exhaust? Would 5 ml in 500 work? Contrast was increased over 1B one hour stand. Perhaps too much to see those clouds clearly.

1B, 1E, & 1F were cut apart, the best exposures were saved. Seen side by side, contrast is apparent. 1B is best. 1E was f16 without a filter. 1F was 2 hours. Red filter increased contrast, which I like.

7266 1F

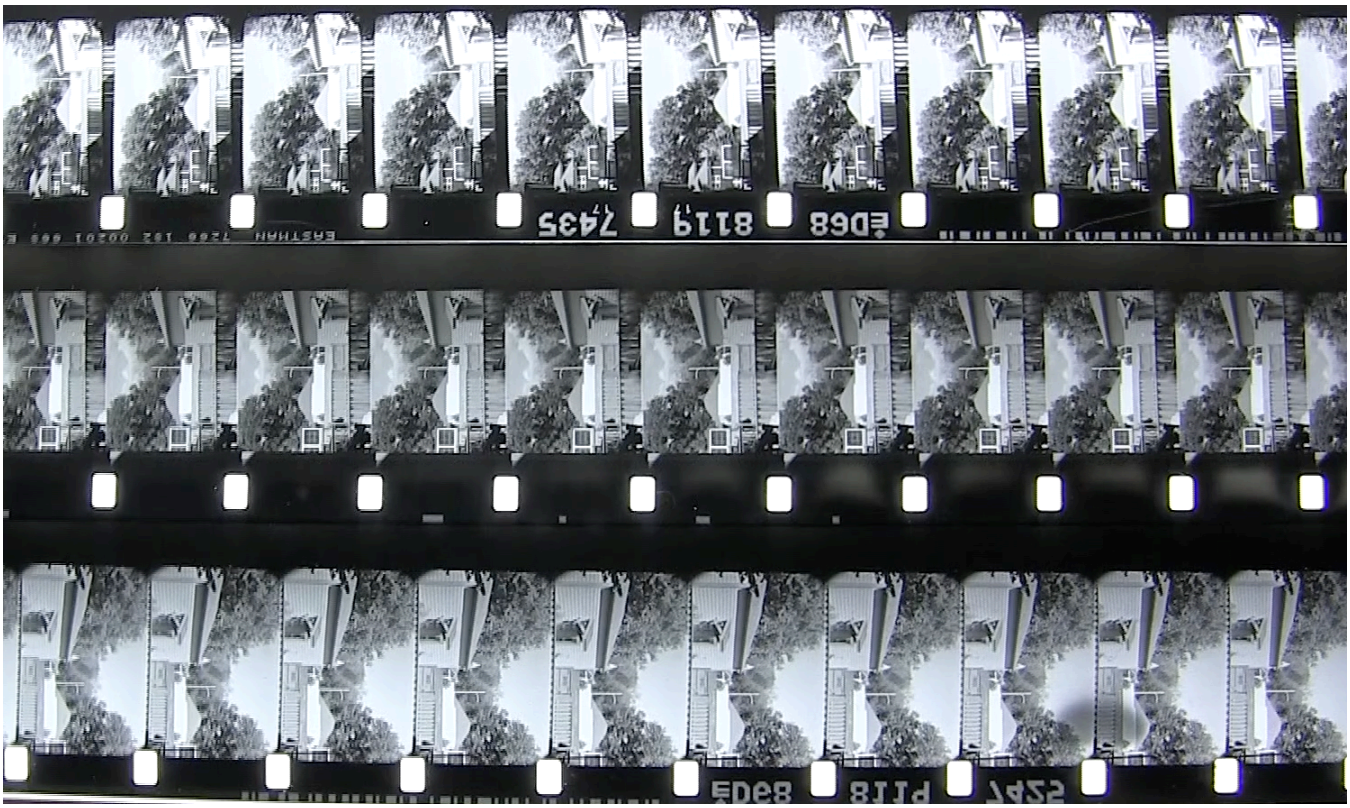
Tri-X 200 16mm Reversed
Stand Developed for two hours
in RO9 1:100 78 degrees
agitate 15 times at the start then
3 times every 30 minuets
Dichromate Bleach
Repeat the same method 2 more hours

Page 270, September 24, 2017, Light was 320, Red filter at + 2 1/2, If you develop longer then film becomes darker. f8-5.6 32 asa

https://youtu.be/PU_oJ-HKUoc

1E 1B 1F

https://youtu.be/kQ5FXymGULg



The icon on YouTube shows two rows of film.

Here are the three different films seen together I talked about. 1E is on the bottom, 1B is in the center, 1F is on top. They were all stand developed.

1E No filter was used. f16 in bright sun.

1B

1F. The lights look overexposed here.

Notes on Reviews of ABCDEF were not transcribed; perhaps they should be.

Transcribed notes of 1G Stand developed

Page 275, Sep 26, 2017 Tues, Stand Test Focus Pull

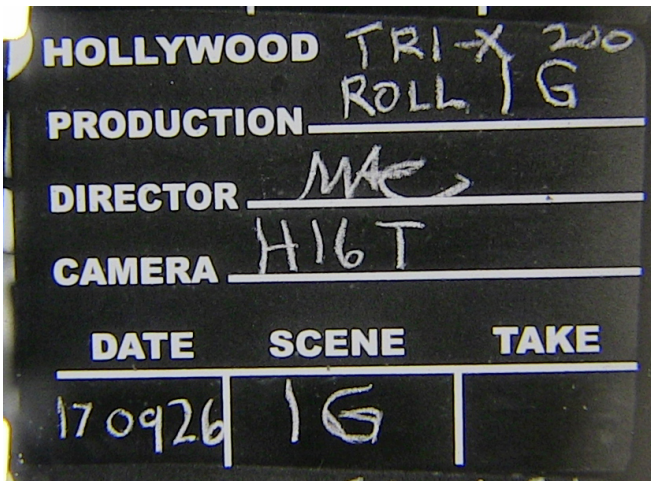
Use a Red filter +2 1/2 stops more light, not +3 stops. Very few notes exist. Slate shots instead of using a gray card. This film has two slates. One is on a white board. It could not be erased and was trashed afterwards. I no longer know what it means that slate. Focus close, close the lens 2 stops or more. Maybe that is it. H16T 1/40. This film shows the left view off the back porch of all the fences. It is a tilt down and up again. The focus is changed from infinity to 30 feet or less then back to infinity. Light was 320-1 centered. f5.6 was used although f5.6 + 1/3 stop more may have been indicated. ASA 20 was written in the notes and on the index card. More exposure wouldn't have hurt.

1G and 1H were developed together in a Patterson tank

RO9 1:100 78 degrees one hour twice

7266 1G

Page 275. September 26, 2017. Light was 320-1 centered. Stand test. Focus pull. Tilt. 25mm Switar lens, Red filter + 2 1/2, Trigger grip, asa 20, focus was



infinity to 30 feet and back to infinity. The slate was focused at 1 1/2 feet. f5.6 was used, but that was wrong, 1/3 stop more was the target.

Tilt down, focus pull, tilt up, changed focus again.

Looking left off the back porch.

The film was put onto a Jobo 110 reel and placed into a Patterson tank.

This film was stand processed along with 1H.

Videos were made and I found them on the flat black AVCHD hard drive. A white slate was tried but could not be erased. It was trashed. I no longer know what I meant by -2 on it. I think I opened the iris two stops to make white look white.

https://youtu.be/_vX0BCrnGkY

Transcribed notes of 1H

Page 275 Sep 26, 2017 Tuesday STAND TILT focus pull

H16T 25mm Switar, Red Filter +2 1/2 Trigger Grip Stand ASA 20 infinity to 30 feet to infinity sky ground sky slate focus 1 1/2 feet side finder adjusted

The light was 320- the low side of 320

f5.6 + 1/3 stop towards f4 was used

No clouds though. I have to do something! The white slate was f11, the black slate was f5.6. The building won't glair now. Slates were tilted or slanted or cocked so as to reduce glair on them.

The film was put onto a Jobo reel and put into the bottom of a Patterson tank. An empty reel was put on top.

Light increased a little bit from 1G. The film ran 10 of my count. I heard it click half way up the right side of the scene tilt. I focused lower to the plant and closer but probably not close enough for the plant. This Jobo will go above the first 2 and be capped by another. 500ml will be mixed at least.

5ml RO9 in 500ml tap water in a Patterson tank at 78 degrees. I could only just see the liquid in the center of the funnel in the tank, not above it at all.

15 slow inversions to start, it had lots of air. This is my first 2 strip stand development. My first set of focus pulls, my first long shot tilts at the selected ISO f-stop.

Cutting a center point on the film end certainly makes loading a spool easier. Same thing goes in loading a 110 reel.

Photo Flow was measured 1/2 tsp in 1000ml

Results

Film looks dark hanging to dry. Slates don't really show. They look great using a magnifying glass, The white version slate board is dark gray. I closed the lens instead of opening it. Letters are in focus near as I can tell.

They both projected pretty much the same, no glair. Could be lighter. Focus was great. The plant was sharp. H has some crap going on but film is totally clear.

Perhaps it was too close to the top of the tank? No. One more click on the ISO dial below 25 from 20 to 16 may look nicer. I did drop H while loading. Chemical and or a little water could have gotten on it. I felt things on one side when I ran it through my fingers drip drying it.

Darker shadows means greater contrast most likely a result of higher temperature of 78 degrees.

After videoing both loops I saw artifacts on both films along one side, the left on the screen. The light box shows black film around sprocket holes while the sound track side varies in density a lot.

This may be because film sat in grooves and wasn't agitated enough.

I eliminated this stand method because of the artifacts that I saw. I tried more frequent agitation to get rid of them. 1C didn't have any artifacts.

7266 1H

Page 276. September 26, 2017. The slate only says 1H like 1G and nothing more. Light was 320- it increased a little bit and the exposure was increased to f5.6 and 1/3 stop more towards f4. I focused closer to the plant this tilt but not as much as it should have been.

My notes say I videoed them but nothing was done. I found two videos by dates.

So, I made a video and put it into the 7266 #1 folder.

At the time I was disappointed by the results. There are artifacts along one side of both films. Because of them I chose to drop using stand processing.

However, they were caused by the film sprocket holes being in the groove of the 110 reel. Lomo tanks do not cause the same thing to happen.

https://youtu.be/u_O-nHtP1iw

Transcribed notes of 1P

These notes were started on the wrong page in the notebook. Page 271. Page 287. Sep 29, 2017 NEW STAND development, increase agitation to get rid of artifacts every 15 min 6X. Temperature was 73 degrees room temp.

RO9 1:100 3 1/2 ml in 300ml tap water

Pan Right straight back view roofs.

Light was 320-1 f5.6/4 Red filter +2 1/2 73 degrees

Agitate 6X every 15 min.

22 agitations to start in 30 seconds

the timer was set to 15 minuets

The video of 1B looks great, but there is crap on the left side of it.

Six inversions were done at the 15 min mark and again and again etc

So, instead of one inversion cycle half way I did three inversion cycles on the quarter hour and twice the inversion in each cycle.

Results

Real close to perfect. Exposure is good. Sprocket edge varies a LOT. No effect. Sound edge was black but some flickering occurs. Very little. Still there. Could be the reel. Other films don't have the same problem.

Try it on a LOMO reel.

It is so close to being right more work is justified.

Both sides of the Jobo reels have grooves. Could it be because the reel is on the bottom of the tank?. Try putting the film on the top. I do not know which way the reel was put in, sprockets up or down. That will be looked at. Check other films. This could be made right.

More bad ideas about Jobo reels occurs. Then good ideas about Lomo. The way film is on the take up spool, the sprocket side is in the groove. The top is smooth. Only half the sprockets are inside the groove.That should make a big difference.

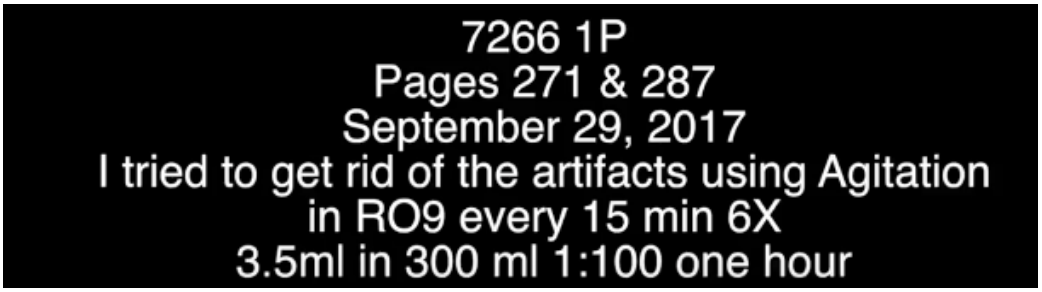
The Jobo reel obscures both sides of the film completely, way more than the Lomo. Instead of increasing agitation even more, try the small Lomo tank instead.

Film would have to be put on another spool to put sprockets on top.

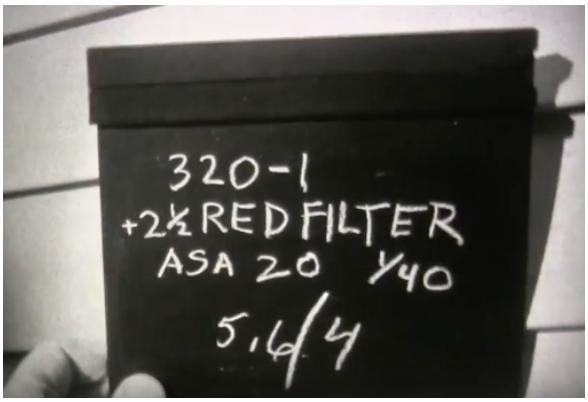
Sep 30, The Small Lomo Tank. 1 Liter fits, a little more too, but it is not needed as the one spiral is deeply submerged. 1000 + 10. 990 ml can't be measured easily unless I use the tall cylinder. 990+10 is more concentrated than 1000+10. Not by much, though. Which is correct? 1 part in 1000 should be 1+99 Right? Melita said it is 99+1.

7266 1P

https://youtu.be/TmV-7aZ9FVU


7266 1P
Pages 271 & 287
September 29, 2017
I tried to get rid of the artifacts using Agitation
in RO9 every 15 min 6X
3.5ml in 300 ml 1:100 one hour

The view is straight back; a pan right.



I really like the creamy smooth quality. Stand developing.

Old 7266 stand developed in the 25 foot Lomo tank

Page 293. The Stand 1 film is a combination of two films. They come from the last part of old roll one. Lomo stand processed in small tank. 50 foot reel.

Houses and Me, Oct 2 Stand 1.mov

https://youtu.be/z4jEFSs9s9A

Another 50 foot reel was labeled, Yard and Houses, Oct 3 Stand 2.mov

https://youtu.be/3jUUfYvwTBY

Both of the descriptions cross link the two films to each other.

Page 293. Oct 1, 2017 Sunday.
The old 7266 was loaded - all of it. A short filter ring works. I got it off the H8Rex4. I am using the H16T with a deep red filter.

320+ 20 ASA f5.6 1/40 H16T 16 fps

(Notes do not say if I used +3 or +2 1/2. I guess +2 1/2 because the meter)

f5.6 and that is open some but not much. All was shot with many mistakes made. I did not mix enough chemicals to use the UPB-1A tank. I like 1 1/2 L in it to cover completely - or even 2L for stand.

25' were loaded on the small spiral. Remainder of film was put back into the box. This smallest tank does accept liquids into the center.

990 ml tap water + 10ml RO9 at 70 degrees f.

It worked great. My video is not perfect. Try gray paper up close, small image.

Mix more chemical and use the larger tank. The UPB 1-A needs 2L + 180ml more to cover 2 reels. 1.5 L is good for one reel.

Measure the 100' tank capacity of liquid. Better use 4L to cover well and have lots extra. There may be more film remaining to be developed than 50'. But surely at least 50'. Do I have enough chemical to mix 3 more L?

There doesn't seem to be enough liquid above the top spiral in the UPB 1-A tank for it to work well as stand developing. I'd prefer more. One 50' spiral is good.

The 100’ tank is just like the 25’ tank. There is a lot of room above the 16mm spiral as there is above the 25’ 16mm one.

I could load a 50’ spiral to see if the film is longer. Then, rewind it.

Page 296 Oct 2, 2017 Monday
Stand 7266 Old same roll

I was right about leaving lots of juice above the spiral. Other people posted the same advice. Use +5 CM above the film.

The Medium sized UPB 1-A LOMO tank must use the spiral as a lid on the lower spiral. The top disc isn’t required. I left it off so I could raise and lower the spirals during agitation.

Try a 3-5 minuet presoak. Try maintaining temperature in a water bath, too. 68 degrees yields smaller grain than higher temperatures. Maintain the mid time agitation. Agitate gently at first 30 seconds. Agitation increases contrast.

No need to worry. All of the film fit onto the 50’ spiral with room to spare.

More chemicals need to be mixed. Now there are 2 x 1L bottles of bleach and clear. 4 bottles in all. 1.5 L is sufficient to do the job but I’ll need 3-4 in the big LOMO tank.

RO9 must be 2L to do stand developing in the UPB 1-A tank.

A funnel must be used in the hose to load the tank. You can’t put liquid into the lid opening as it chokes. A 2L water pre-soak checked for leaks.

The 1st developer is in and the timer is on. You set the timer to one hour by spinning the second hand all the way round to 59 then click the minuets all the way around to 59.

The spiral may be lifted when tipping the tank to drain the last bit of liquid. Temperature was not measured. But, tap water is 70 degrees, just like yesterday.

At 30 minuets agitation consisted of: Lift, twist, drop. 3s times. A short twist, then, I had to stop the thing from turning by itself!

The tank is best elevated to drain fluids into beakers. I used a white bucket at first but it was too uneven. A blue suitcase worked better.

The beaker is hard to hold. The coffee pot barely holds 2L to the brim. Bleach had to be washed out several times to clear it. A 2L beaker measures out flow so you know when the tank is empty. I had to buy a new larger coffee pot. New fixer was mixed.

Fix 10 minuets in freshly mixed fixer.

Washes were loaded through the hose and funnel from a 2L coffee pot. The tank never overflowed. It stayed on the case. Drainage could go into bottles.

New Photo Flow was added. 3/4 tsp in 1L works. It was saved in a 3L bottle made of brown glass.

There are slates.

It starts on the left of the dryer.

Attach the film I projected to the end on the right.

A post on Photrio (APUG) said that pre-soaking causes less contrast. That's good. The part of this film developed yesterday was VERY contrasty. And. Full stand does not agitate in the middle of the time. Well, I do agitate to get even developing. It may cause contrast but mixing up the developer is important, besides, it works.

This film has a lot of shooting mistakes on it. The lens wasn't focused, the filter was off, the wrong lens was used...

The overall film could be lighter. Not 10, Not 20, 16? 12? Exposure was great for the highlights. The shadows are black. The contrast was extreme that day. Less agitation may be worth trying. Pre-soak, less agitation, and 12 ASA?

Page 299 Oct 3 Tuesday old 7266 R 16mm

My first 16mm projectable film. Stand 1. It is the old 16mm 7266 reversed film left over from England. I shot it in Edgewood recently and developed it in Lomo tanks myself. It was reversed so as to avoid getting print film. It has been trimmed of a long mistake but wrong exposures on slates were retained. Leaders were added. Black leader was added to the end. White leader is outside. I wrote on it so I know what it is. It was STAND reversed in RO9. It is 7266, the same as new film. The same techniques work the same on new film. I can repeat this. I can do it all myself. It *could* be duplicated. I'll try that someday.

Page 303 Oct 3 Tuesday Stand 2 on old 7266
Exactly how much film fits on the UPB 1-A spirals? I have to count frames when shooting so as not to exceed that amount. The camera speed was measured.

(No shooting information about the first Stand 1 film exists. I shot off the cuff)

This is shooting information about the second Stand film, Stand 2. Film frame numbers were written down. The start and end frames were recorded. That way I knew when to stop filming and start developing. Skip them here.

SLATE: Red Filter +2 1/2, focus at 1 1/4‘ 16mm Wide Angle lens f4-1/3 (to 5.6)

ONE: 8 seconds Left off back porch. Focus at infinity. f4-1/3 16mm WA lens. Light was 320+ as written on the slate. ASA is 12. 1/40 second shutter speed.

SLATE: same thing

TWO: Straight back from the back porch. Same exposure.

THREE: The slate was removed from the film for some reason. It is in the notes. The scene is from the bathroom window looking left a little at the corner. Pan right. The (trigger?) handle was supported by the window frame.

SLATES: Scene 4, no filter, light was low by the window.

FOUR: 25mm lens. 3rd floor rear window. Focus pull. Infinity to 5 feet, then back to infinity again. Look at the detail on the Sycamore tree bark next to the white building. They change pretty fast.

SLATE: Same exposure. Nicely framed and exposed. 12 ISO

FIVE: Garage from the chair on the back porch. Wide shot. Red f4-1/3 to 5.6

SLATE: low scale light 640-1 (or 320+2) f2.8/2. No filter.

SIX: Left yard caddy corner yard in shade location shot. 25mm Switar. 30’ focus

SLATE: 320+, +2 1/2 Red filter, ASA 12, 1/40, f4-1/3 or f5.6+2/3

SEVEN: Looking right off the back porch, tilting up from bushes to the garage.

SLATE: f4+1/3 towards f2.8. Open lens two clicks.

SEVEN 2: Right off porch, garage shade. Bushes unaffected by increased exp.

In the darkroom, unloading the film, the film had jammed. It didn't get taken up into the film spool. Bad spool. I wound it onto the spool. While doing so, film wouldn't go in; there was a tight spot. I bent it outwards and finished. I put that spool aside after developing had finished.

Page 305 Developing in the medium Lomo tank
The film was pre-soaked.

1. The first developer first half was agitated 20 times.
   20ml of RO9 was put into 2000 ml of tap water.
2. The first developer second half got 2 1/4 turns and 4 bumps up and down. Rinse, Bleach 5 min, Rinse, Rinse, Clear 3 min, Rinse, Rinse, re expose 30 seconds a side. One part stuck together. About two spirals remained unfilled.
3. Second developer first half. The entire tank was put into the white tub and filled with 68-70 degree water. I agitated 20 seconds to start.
4. A few bumps and turns started the last stand developing section. New fixer in the brown glass bottle was used. 10 minuets.

Quite a lot of film stuck together on the spiral. Most was fine. It had jammed in the camera due to a dropped bent spool. It looks so dark and is not at all like still negatives. Projection is different . There <u>are</u> pictures.

Projection: I was shocked at how nice the first shot looked! The shaded yard was dull dull. The garage right shots were very dark, but the increased exposure helped a tiny bit.

This was old film and 12 asa. Is new film the same or higher asa in stand? 25

The LOMO 25 foot tank holds 1300 frames of 16mm film, Foma won't fit.

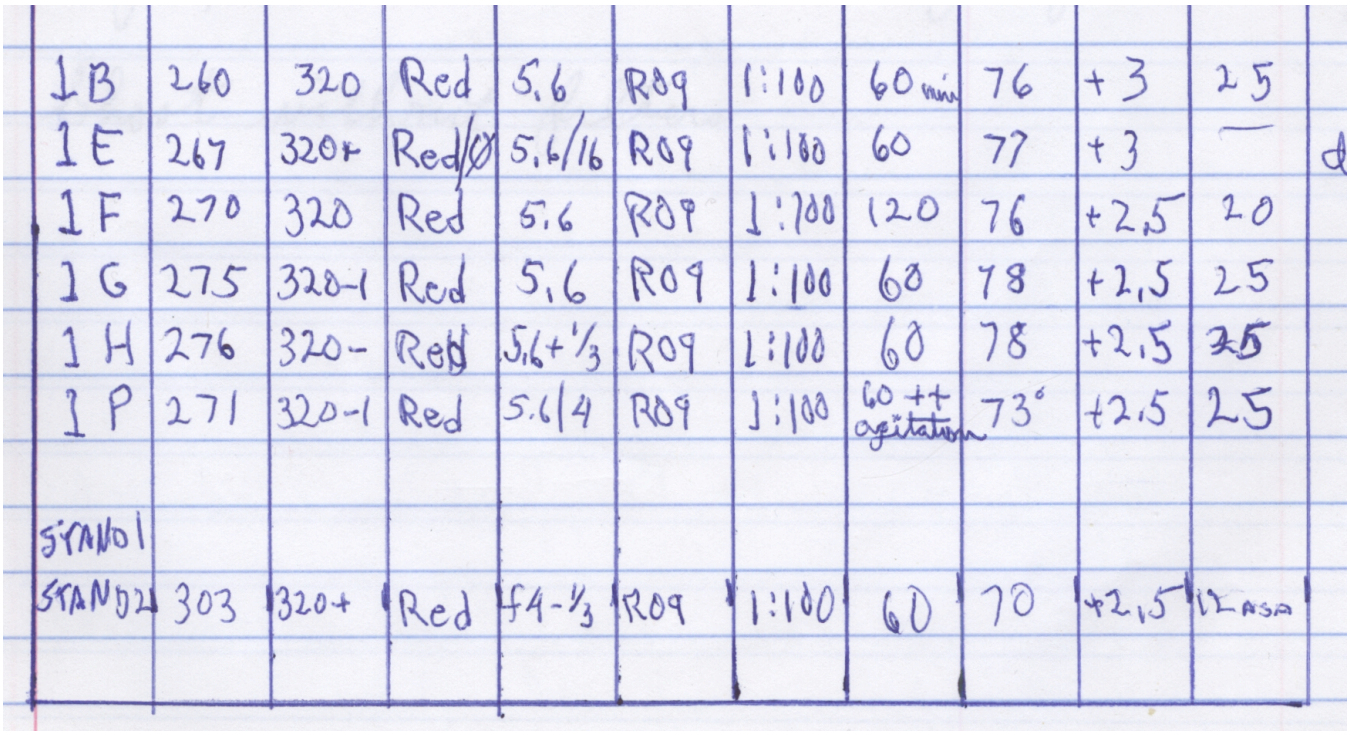
7266 Stand Conclusions

All but one of my tests and films used a deep red filter. The old film was slower by one stop than the new film. All the tests were the same exposure basically. The red filter may or may not be +2 1/2 Use 25 ISO and + 2 1/2 for the filter. A filter is not needed. I need to learn to expose without using the red filter. All my tests were made on bright sunny days. The roll 2 tests have not been checked for Stand development tests. Standardize the temperature of tests. They are all over the place. Rollei Compart RO9 One Shot Agfa Rodinal Formula Film Developer - 500ml is $12.19 from Freestyle Photographic Supplies https://www.freestylephoto.biz/category/12-Chemicals/Black-and-White-Chemicals?mfg%5B%5D=257&attr%5B%5D=30-143&attr%5B%5D=45-255

Adox Rodinal Film Developer - 500ml costs more $15.99

It can be mixed DIY from Tylenol and Lye but I will buy it ready made.

name. page. Light. filter. f stop. dev. dilution time. temp. filter. iso asa



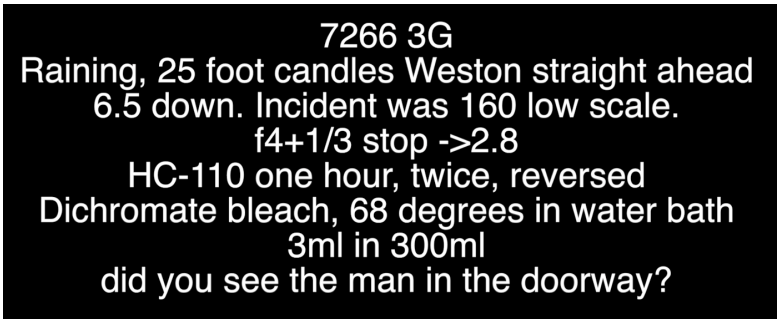
1B	260	320	Red	5.6	R09	1:100	60 min	76	+3	25
1E	267	320+	Red	5.6/16	R09	1:100	60	77	+3	—
1F	270	320	Red	5.6	R09	1:100	120	76	+2,5	20
1G	275	320-1	Red	5.6	R09	1:100	60	78	+2,5	25
1H	276	320-	Red	5.6+⅓	R09	1:100	60	78	+2,5	25
1P	271	320-1	Red	5.6/4	R09	1:100	60 ++ agitation	73°	+2,5	25
STAND1										
STAND2	303	320+	Red	f4-⅓	R09	1:100	60	70	+2,5	12 ASA

7266 3G in HC-110

January 12, 2018. Rain. Dark. Try a new developer, HC-110 on 7266 roll 3.

https://youtu.be/TxncJDWh6kY

Stand develop Tri-X 16mm 7266 reversed in HC-110 just to see if it works. One hour. 1:100. bleach in dichromate. stand one hour more after re exposure. It was raining and dark. Light was 6.5 to 25 on a Weston IV or 160 incident low scale on the Sekonic. f4+1/3 stop more. 20 agitations to start. 2 agitations on the half hour. 68 degree water bath.


7266 3G
Raining, 25 foot candles Weston straight ahead
6.5 down. Incident was 160 low scale.
f4+1/3 stop ->2.8
HC-110 one hour, twice, reversed
Dichromate bleach, 68 degrees in water bath
3ml in 300ml
did you see the man in the doorway?

The scene was shot straight back from the third floor window with the window open and the camera sat on top of the frame. The white house behind mine was shot. It is a static shot mostly.

I used the Weston IV from the window. It read so low, holding it downwards, that I had to raise it up lever to get a reading at all, that 25 was as high as it would go, even pointing it up. The high scale had been used with the baffle closed.

So, I guessed and chose a ASA of 25 and a light of 25 foot candles, set the lens, and shot some film. I had to see if HC-110 worked.

Transcription of 7266 3G

The H16Rex4 had been loaded a while and I wanted to shoot some film to unwind the spring again. A take up spool had been put in it because I intended to shoot all the remaining film on the roll. However, I learned about HC-110 being used in Stand developing and had to try it. So, I back wound 7 cranks first. Shot 6 or 7 clicks plus a squirt. The Weston light meter read 25 from the 3rd floor rear. 1/50 f4+1/3 ->f2.8 infinity 25mm Som Berthoit lens 25ASA.

HC-110 1:100 One hour.

Film was off the spool and out of the gears when I opened the camera. The film was much shorter than I thought it would be. 3’ long. 3ml in 300ml tap water at 70 degrees. A water bath in the cooler was used at 68 degrees. 20 inversions of

agitation were used to start the developing sequence. Film was put into the bottom of the Jobo tank on the 110 reel with an empty reel on top of it. The bottle of HC-110 hadn't been mixed for the first developer. It had sat in my darkroom a long time. But it poured out easily. The film wasn't pre soaked. The liquid was mixed using hot water to get it all out of the measuring flask.

After the film was started developing, I read the light in the back yard again out in the yard. Now the light meter in the yard barely registered straight out at 25. Incident was higher at 160 on the low scale. That's a 2 stop difference. More work is needed on exposure for sure. Weston low scale was 6.5 pointing downwards and 25 tilted flat. Now it matches the incident. Underexposed film I bet. Leave it in the developer longer. Ha. Ha.

At the 30 minuet time the film was agitated 2 times. After bleaching it I saw some ghost images and I knew that it would develop all right after all. 150 ml of bleach and clear were used with additional agitations. Re-exposure was 30 seconds a side 4 inches away from the ceiling light and the reel was flipped over a couple times at 90 degree intervals for 360 degrees.

300ml of water from the water bath in the cooler was used with 3 more ml of HC-110 for the second developer. 68 degrees were used for everything. 20 inversions started the second development.

Film was taken out of the camera and put into a Kodak box, taped shut, labeled. The spring had unwound completely. More exposure may have been given the film as a result of the slower speed.

2 inversions were given at the half way time of 30 minuets. Fix was tested on a piece of the film that had to be removed because it would not back wind. It made noise and I opened the camera in the dark and had to cut the film. That is why it was boxed again. The piece of film cleared in 1 minuet. I gave it 3 minuets.

The black leader is very dense. The images look great. They should project nicely, and did.

This worked!

Projection is right on. Exposure looks the same as the rainy day. The film is not dark. It cold be 100 ASA! More on exposure and ISO follows... 160 incident f4+1/3 stop ->f2.8 1/50 ASA is close to 100 first try. 125.

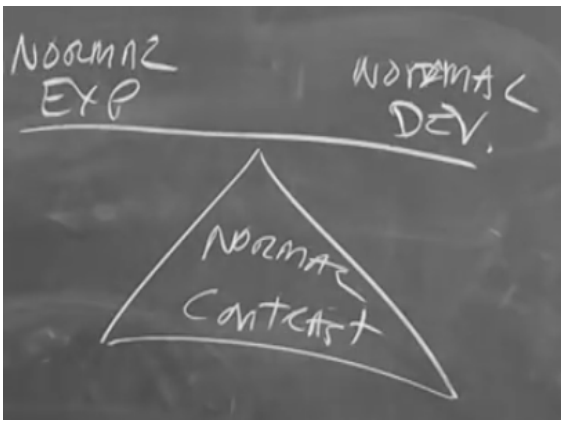
I can't figure ASA on the Weston yet. Not like on the Sekonic. Wait. If I use 6.5 as the down reading1/50 goes next to f4 towards f2.8 and ASA is 100. Light had been 160 + 1 block on the Sekonic incident meter. If covered the incident reading would have been 160 or even lower.

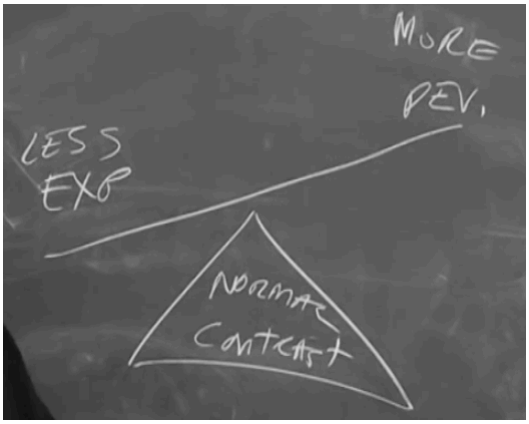
I read the light again in the yard after I'd loaded the Jobo tank. But the Weston gave me the same reading, holding it straight out, as it had upstairs. The 6.5 was had because I remembered to open the baffle for low levels of illumination. It went up to 25 on the low scale as it went down to 25 on the closed baffle high scale.

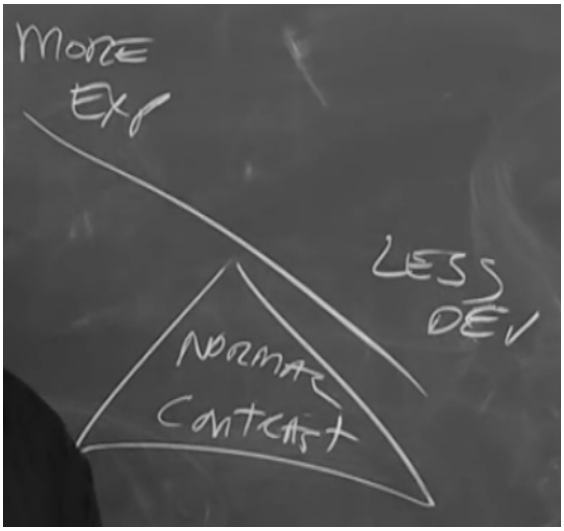
I don't know about you, but I got an ASA of 100. Both meters gave me the same thing. After some fiddling. It is a tricky bit and I am still learning but there it is. 100 ASA on the Weston Master IV reflected meter and 100 ISO on the Sekonic Studio Delux II incident meter. Not bad. Not bad at all. That is way better in fact than RO9 gives. 6.5 foot candles were indicated when the Weston meter was held pointing downwards. It then read 25 when raised to be straight ahead. That was using the low scale with the baffle open. The Sekonic read 160 + 1 block, but I know that if I had covered it with my hand, blocking overhead light some, it would have read one block lower. Been there, done that. Both meters then were set to have 1/50 next to the f4 + 1/3 which was the aperture I'd used. That made the ASA/ISOs to be 100. Cool.

Develop film Wrong

https://www.youtube.com/watch?v=OdpfRqDDZyw&t=318s







Normal development of film
gives you basic contrast
Overdevelopment gives you more contrast.
Underdevelopment gives you less contrast.

The first thing I have to do is to determine normal development in HC-110. That may be done on a normal sunny day without snow. There is a lot of snow on the ground today, January 15, 2018. The man door on my garage is medium gray. That could be read with the spot meter from the window. The incident light could also be read from outside. However, it may be brighter on account of the snow everywhere.

Flat neg at bottom left is used for extreme contrast. Top right is for low-level light.

For low-level light situations such as interiors, bar scenes, concerts and sports, photographers have traditionally rated Tri-X at 1600 and overdeveloped.

Over exposure, under development by about a half on a print. When you have extreme contrast, you want a flat negative development scheme.

Common Combinations	Experiments
• Tri-X 400 or ASA 400 film rated at 200 or 100 film speed coupled with 30% reduction in development time • T-Max 100 or ASA 100 film rated at 200 or 400 film speed coupled with 30-50% more development time	• Use different ASAs for the same film • Try different development times depending on exposure • Try different dilutions of film developer *D76 1:1; D76 1:2; D76 straight* • Change the developer temperature • Stand-alone development

I want to try this on 16mm film

7266 3H in HC-110

January 16, 2018 Late in the day, 4PM, overcast, snowing, dim.

https://youtu.be/EQCQ1MZr2f4

HC-110 was used to develop 7266 reversed by the STAND method. It was very dim out and late, overcast, snowing. I overexposed, presoaked, limited agitation, used 68 degrees F in a water bath. Dichromate bleach was used. One full hour was given to both developings. Incident light was 20H or 640 low. 100 ISO was used. H16Rex4, 1/50, 16mm lens, infinity focus, f4 was used to expose with.

It was late in the day, after 4 PM but I wanted to do a film before it got dark again. The sky was overcast, there was a light snow falling, there was a lot of snow already on the ground. I didn't know how to expose for all that white so I took three different light readings. The last film was 100 asa so I used that. The H16Rex4 was used. The 16mm lens was used. Extensions were all removed from the other lenses so they would not cut off any of the picture. A take up reel was used. 9 clicks were shot to get a full 110 Jobo reel.

The Minolta spot meter was aimed at the man door on the garage from the 3rd floor rear open window. It read between f4 and f5.6. The was the needle on top. The digital reading said 4.0s or 5. I don't understand that one. 1/50. 100asa.

The Weston held pointing down was brighter than straight ahead. It was 100. Since it is a reflected meter the snow would be gray that way, so I added 3 stops to get f4 -2/3 towards f5.6

The Sekonic was used first out in the back yard. 20 H and 160 Low were set. The reading would be between both settings. 20+ and 160-1 actual. f5.6 -1/3 stop towards f8 was indicated.

I overexposed at f4. That's ASA 40 on the Sekonic and 64 on the Weston

Agitation was limited to 3 inversions done very slowly at first then 1 at the half hour. One hour was used. 3.5ml of HC-110 was used in 300ml tap water. A 68 degree water bath was used. 5 min bleach, 3 min clear, 30 seconds re-exposure on each side plus four flips. The film was streaked with photo flow residue. I wiped it off with a damp tissue later. Snow shows lots of detail. The image is real soft overall. I don't like it. But it is a look. Highlights are not blown out.

3i

https://youtu.be/10sym-MDZPY

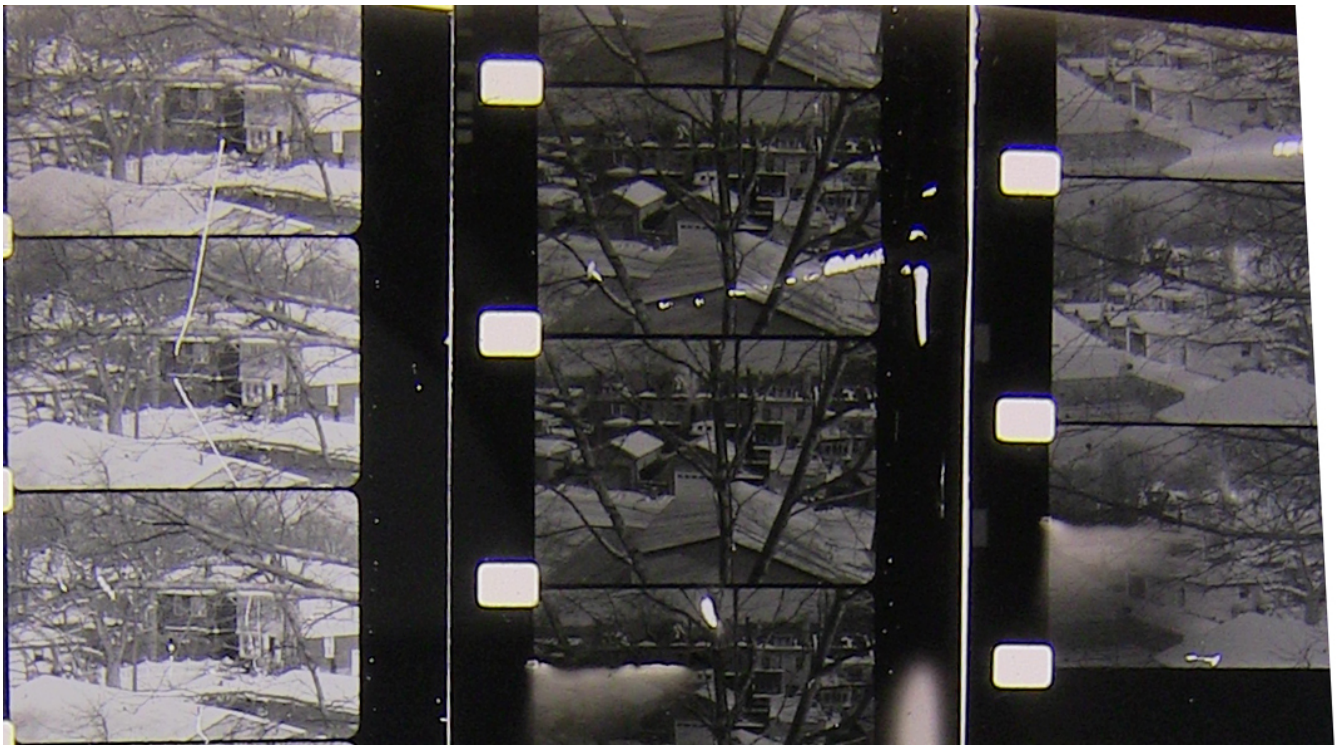
New Kodak Tri-X reversal 7266 developed in a small LOMO tank for one hour twice using HC-110 like the other two tests, minimal agitation, 68 degrees, f16 was used, light was between 160 and 320 incident on the high scale, the person door on my garage was f16 to f22 spot metered; that door is my gray card. This is a low contrast method of developing on a high contrast day. The freeze frame at the beginning was from the previous film, 3H, an overcast snowing day, but developed with this sunny day film.

3J

Brilliant sunlight and clear blue skies today. Heavy snow is on the ground. At 11:30 am there is strong side light and lots of shadows. The Sekonic incident light meter read 320 centered on the high scale. Even more than yesterday! It just doesn't get much brighter than that here in Pittsburgh. I used a N.D. 0.6 filter at +2 stops more light. All the remaining film on this roll number 3 was exposed. I'd be kicking myself all next summer if I did not shoot these city landscapes today. The Bolex H16Rex4 camera at 1/50 and f16+1/3 towards f11 were used. Infinity focus was set on 3 lenses, 16 mm, 25 mm, 10 mm. I think I heard the film run out during the 10 mm shot. The reflex baffle was closed throughout and the side finder was used. Hand held pans and tilts were done slowly, assisted by the top of an open window to steady me.
That is the last of my Tri-X

Right to Left, 3i, 3J, 3K

3K 3J 3i



3J one hour both developments, 80 degrees, more agitation, no presoak

3K two hour first development, 75 degrees, normal agitation, no presoak

My goal is to use cheap easy to get developer. HC-110 looks good.

Here is a thread. https://www.flickr.com/.../discuss/72157627740433943/page2/

B&H has HC110 and free shipping over 49 dollars.

I do think it'll work on movie film now.

I just saw results of a 2 hour stand first development with a 1 hour second development. I pushed it to see. Great! Exposures were off. This one is bright as day. And more heat and agitation increases contrast but the exposure has to be right first. The middle one had contrast increased with 80f, and more agitation, no presoak. The left one was pushed, two hours first developer, no presoak, normal agitation, 75f. The right one had low 68 degree f temp, presoaked 10 min, and little agitation. The left and middle ones are from the same shoot, they were exposed the same, the film was cut.

These were done in the smallest LOMO 25 foot tank. 1100 ml were used. All three have basically the same exposure. I should have bracketed first.

The last lightest one looks great projected. However, you can see from the clip above that it still could use some more contrast. It would look even better with more contrast.

The developer was diluted 1:100.

Regarding Prof. Agar's YouTube video:

The sample of his father by the window is very interesting. Development was cut in half. I have not cut development yet because I do reversal. However, I lowered temperature and reduced agitation. That reduced contrast effectively. I will use those films to print copies on higher contrast film. Btw, the movie, Godfather II, has shots like the father by the window all through it.

3HiJ https://youtu.be/2qh8-GJN9l0

The names are screwed up.3K is the light one. It was developed 2 hours.

7266 Roll #4 Test A

Page 437 January 21, 2018 https://youtu.be/_g1T-XdGsCc

Roll 4 test A of 7266 16mm was reversed in a bracket test using HC-110. The subject was my garage door seen from the second floor bathroom window straight back of my house. The H16Rex4 camera was used with, 25mm Som Berthiot lens, infinity focus, no filter, hand held, full wind, no spools, short film, Weston and Sekonic meters at the door outside, overcast sky, whole stops between the brackets, 3 blank covered lens single frames were shot between each bracket, 2:30pm, f16, 11, 8, 5.6, 4, the speed was 16fps,

Dilution was 1:100. 3.5ml in 300ml. Temperature was between 75 and 80 f. No pre soak was given to increase the contrast. Pre soaking reduces contrast. A water bath in an Igloo cooler was used to keep temperature pretty constant. Agitation was higher than usual, 20 inversions in 30 seconds to begin and 6 inversions at the half hour. One hour was developed for the first and one hour for the second developers. Agitation could have been even more or the temperature a little higher? Anyway, box speed looked great. 200 ASA.

The Weston Master IV reflected meter was used up close to my gray card garage door and gave a 25 foot candle reading. Very overcast today. The Sekonic incident was one stop higher at 40 on the high scale, but I did not shield it from overhead sky lighting. If I had shielded it the reading could have been the same. The f stop indicated was between f11 and f8 and that is fine with me according to what I saw the projected image to be. Closer to f11. The 1/50 was next to f11 towards f8 and not under f11 or in the middle between them.

f11

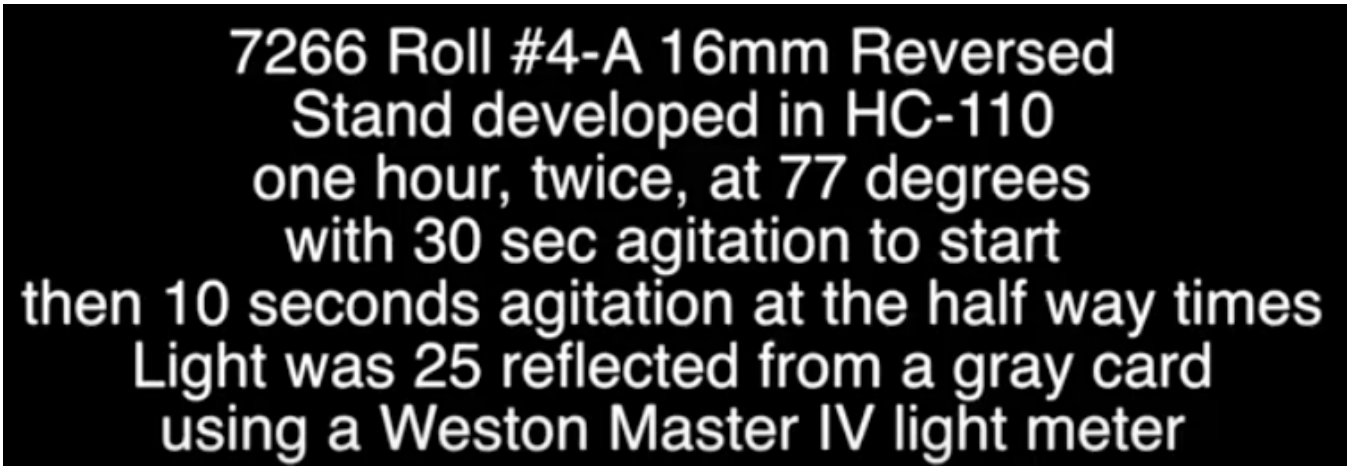
f8

f5.6

The reason 75 degrees or higher temperature was used was because those are the temperatures that were used earlier with RO9 in the summer.

Box speed is 200 ASA/ISO. That is just under f11 or on f11. I do not know. I have to project it to see what I like. And I like it bright, but not weak and thin and grainy. But overcast is dark and maybe that is what it is supposed to look like. Contrast or density is better at f11 than at f8.

Upon reviewing the projected film again, f8 and f5.6 look light. I like light. However, they also look thin. Even grainy. f16 looks too dark. So, I suppose f11+1/3 stop more light would be absolutely correct. Better conditions would make a better looking film. f11 looks fat or thick or just strong, not weak as do f8 and f5.6. I thought they could use more contrast or now what I call density.


7266 Roll #4-A 16mm Reversed
Stand developed in HC-110
one hour, twice, at 77 degrees
with 30 sec agitation to start
then 10 seconds agitation at the half way times
Light was 25 reflected from a gray card
using a Weston Master IV light meter

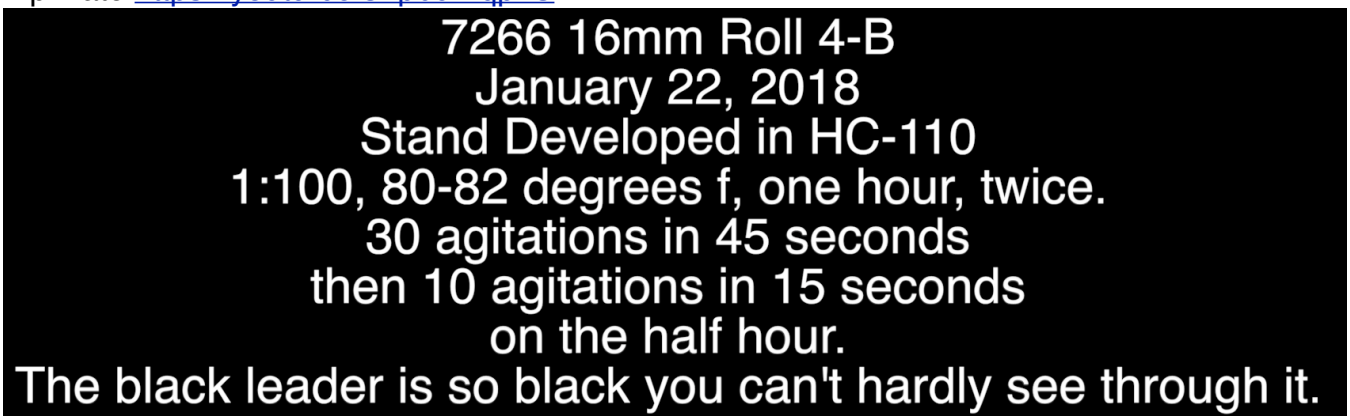
This would be worth making a long exposure at 200 ASA, 25 foot candles, Weston meter, f11+1/3 stop more light, 1/50.

https://youtu.be/_g1T-XdGsCc

7266 Roll #4 Test B

Page 439, January 22, 2018

private https://youtu.be/3Lpb0fFqpxU


7266 16mm Roll 4-B
January 22, 2018
Stand Developed in HC-110
1:100, 80-82 degrees f, one hour, twice.
30 agitations in 45 seconds
then 10 agitations in 15 seconds
on the half hour.
The black leader is so black you can't hardly see through it.

My conclusion on the previous film was that the lighter shots needed more snap.

All of these look good, none are weak or thin. I prefer the lighter end of them. Any could be used. Latitude was increased. 3&4 are 200 & 160 ASA	Increased agitation and temperature made the lightest shots useable, strong, fat or dense. 5,6,7 look best to my liking. 125, 100, 80 ASA.	

Light was 25 again on the Weston light meter. All are strong and useable.

7266 Roll #4 Test C

Page 442, January 23, 2018

https://youtu.be/oEexD-SArr8

Push the film in the first developer some, but not two hours worth. I used one and one half hours. Only the first developer. After projecting it I liked both #3 brackets. They are f5.6 and 5.6/4 or 250 and 200 asa. They are both lighter than the previous films.

My selections were made from the projected film. Video made it look lighter. They are lighter than previous films. Perhaps it is like my first traffic film that was developed 18 min instead of 14 or 16 and became lighter.

I do not know what the correct exposure should be other than what I like. A film should be shot under different lighting conditions, slated light levels for each shot, and sent to a professional lab to be developed. Then I could just copy each type of lighting exposure. The video camera made the images brighter than when seen projected. That is because the image area has so much black around it. So, I videoed it again and shared images from it.

f11, 11-8, 8, 8-5.6, **5.6**, **5.6-4**, 4, 2.8. f5.6 +1/3 is 200 asa

7266 Roll #4 Test D

Jan 26, 2018. Page 447

What will my current developing method look like on a bright sunny day? Just take what looked best on the overcast day and try it in bright light. Only use 25 feet this time to get a proper sample to prove it works, I hope.

H16Rex4, 16fps, 2 spools, N.D. 0.60, (+2), Light was 320 & 400, 200 Asa, f16.

The subject was seen left off the back porch. Garage Construction. I shot 1200 feet. The small LOMO tank was used to develop it in by the Stand method. The film was slightly overexposed. More film was advanced after the last shot with a covered lens to get the entire exposure out of the gate. 3 black frames were had. 70 frames or so were used to load the camera and onto the spool. 1300 is all.

The filter was left installed in the camera. A take-up spool must be put back into the camera. Bleach and Clear were mixed and put into 1L bottles. They were laid in the 82 degree water bath. See picture on next page.

All I have to do to keep water warm is add some since it drains automatically. The LOMO will not float if developer is in it.

HC-110 was used at a dilution of 1:100. 11ml were used in 1100 tap water. Agitation was 35 rattled turns in 45 seconds to start, then at the half way time, 10 agitations are given in 15 seconds.

More hot water had to be added every 15 minuets or shorter to keep the temperature up over 80 degrees f.

The first developer was done one and one-half hours. The second was one hour.

Re-exposure was made to a 60W blue bare bulb by the sewing machine. 30 seconds a side were given.

Ghost images were very strong. Projected, it looked great!

Film this length is easy to dry. I wipe the shiny side which is towards the supports. Film feeds onto the drying rack from right to left under it. Film is loaded off the dryer from the left side and rolled onto a spool or reel dull side out and counter clockwise with sprocket holes towards you over the top to the left.

When you shoot the film the tail is out on the take-up reel. That end goes in the center of the developing spiral. The head of the film, the starting end, ends up on the outer portion of the spiral. It gets loaded first on the right side of the drying rack. The end of the film had a few black frames but the start of it has many.

7222 Oct 7, 2017

https://youtu.be/C97OrHw8tOM

7222 negative developed two ways. Same subject, same light, same exposure, different developers. D-76 1:0 7 min 68 degrees F versus RO9 1:100. one hour full stand no agitation after the first bit, 72 degrees room temperature.